

**SERVICE BULLETIN SR22-9-09-001**  
11/11/2009, Revision A

**SR22 SUPERCHARGER AUTOMATIC BELT TENSIONER**

**Background:**

The rubber in a v-belt supplies the friction surface. The power transmission in a belt is supplied by the cords imbedded in the rubber. The cords in a v-belt will continue to stretch throughout its useful life and therefore requires re-tensioning for maximum belt life.

This service bulletin, Revision A, describes the installation of an automatic belt tensioner that eliminates manual belt tension maintenance, extends belt life, decreases vibration, and decreases loads on bearings and shafts, and replaces all previous idlers and automatic belt tensioners. Contact FAT if you are unsure which tensioning system is on your aircraft.

**Compliance:** Mandatory, in the next 25 hours to ensure warranty coverage. Contact FAT for parts.

<b>Materials:</b>	<u>Part</u>	<u>Quantity</u>
	S550013-T SC Tensioner Bracket	1
	S2033 SC Belt Tensioner	1
	S550063 belt	1
	GR 10.9 M10 x 1.50 x 70 bolt	1
	GR 10.9 M10 flat washer	2
	GR 10.9 M10 split lock washer	1
	GR 10.9 M10 nut	1
	GR 10.9 M12 x 1.75 x 40 bolt	2
	GR 10.9 M12 x 1.75 x 25 bolt	1
	GR 10.9 M12 flat washer	4
	GR 10.9 M12 split lock washer	3
	3/8" x 3/8" x 7/8" square key	1
	Instructions for Continued Airworthiness Doc 22006-30	1
	Instructions for Continued Airworthiness Doc 22007-30	1

**Materials Cost:**     \$280.00

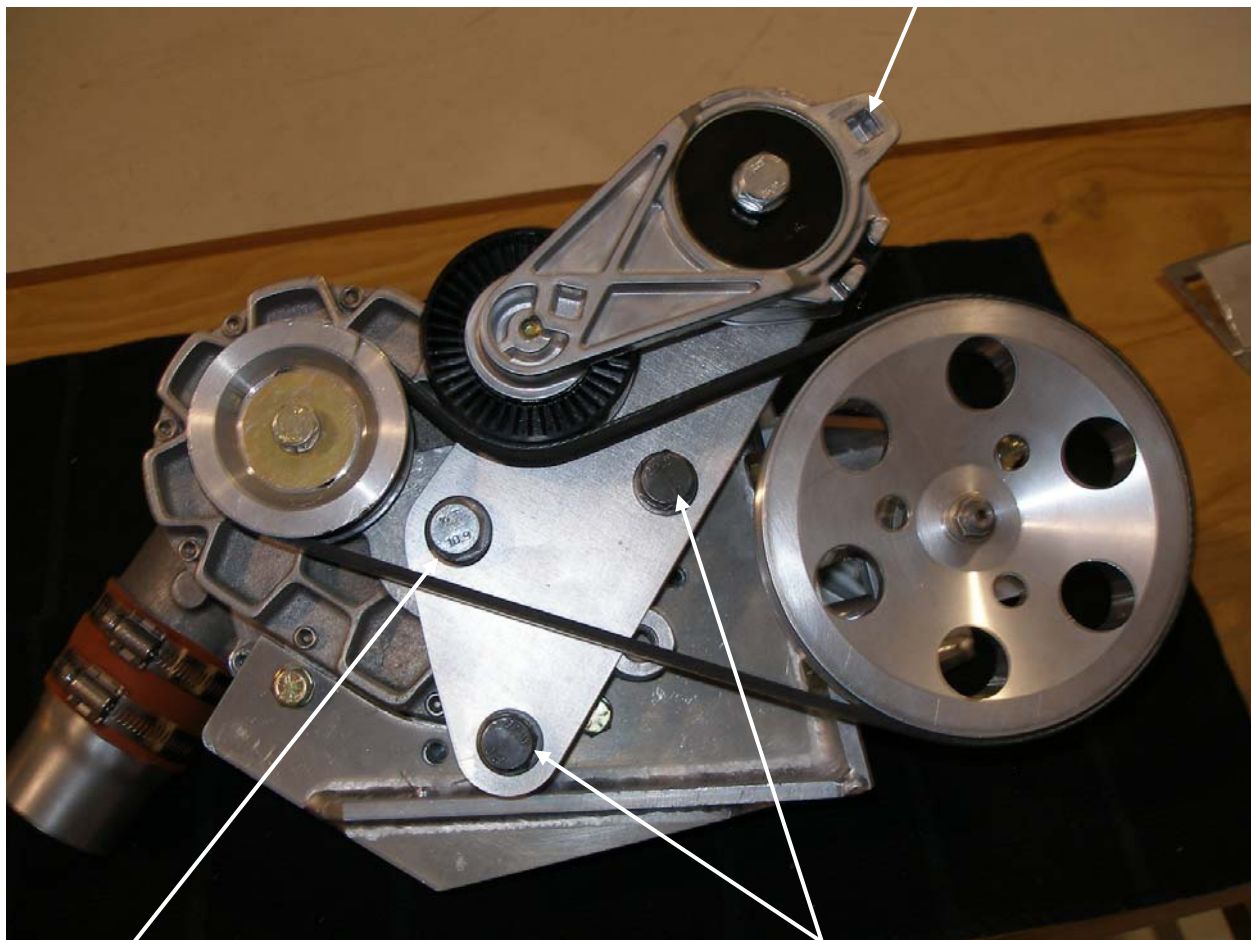
**Estimated installation time:**     .75 hours

**Belt tensioner installation:**

1. Using a  $\frac{3}{4}$ " wrench remove the three bolts securing the idler to the supercharger and remove the idler and the belt. Save the two long bolts and washers. If the aircraft has an automatic tensioner, place an open end  $\frac{3}{4}$  " wrench on the end of the tensioner and rotate the tensioner and remove the belt. Then remove the three bolts securing the tensioner to the supercharger and remove the tensioner. Save the two long bolts and washers.
2. Install the new tensioner on the supercharger per figure 1. Use Loctite P/N 242 or equivalent on the 3 bolts. Torque the 2 -40mm long bolts to 35.0 ft lbs. Torque the 25mm long bolt to 15 ft lbs.
3. Place the belt, P/N S550063, around the large drive pulley and under the tensioner.
4. Place the  $\frac{3}{8}$ " square key in the  $\frac{3}{8}$ " socket in the end of the tensioner and using a  $\frac{3}{8}$ " open end wrench on the end of the tensioner (a breaker bar and crows foot works well) rotate the tensioner pulley upward and loop the belt over the supercharger pulley, then release the tensioner against the belt. Figure 2.
5. Rotate the drive assembly to ensure the belt is in the grooves and tracking on the pulleys.

FIGURE 1

3/8" square key goes here for installing belt



25mm bolt,  
2 flat washers, 1 lock washer

40mm bolts,  
1 each flat wash and lock washer

FIGURE 2



Contact FAT for technical assistance.  
END